IS 12353 (1988): Stencil Templates for Geometrical Figures
[PGD 22: Educational Instruments and Equipment]

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Indian Standard

SPECIFICATION FOR
STENCIL TEMPLATES FOR GEOMETRICAL FIGURES

1. Scope — Covers the requirements of mechanical type cut through templates required for drawing geometrical shapes.

2. Types

2.1 The following two types of templates are recommended:

Type A — Templates suitable for drawing with pencils, and

Type B — Templates suitable for drawing with ink-pens.

3. Materials

3.1 Templates shall be made of coloured plastics such as butrate or polymethyl methacrylate (acrylics) or regid polyvinyl chloride or polyvinyl chloride copolymer.

3.2 The material shall be transparent, bright and clean, and shall be reasonably free from porosity, bubbles, blisters, spots, scratches and similar other defects.

4. General Requirements

4.1 The templates shall be generally rectangular in shape having moulded or machined edges.

4.2 The templates shall be capable for drawing different geometrical shapes, such as circles, arcs, ellipses, squares, rectangles, hexagons, side view of hexagonal bolts and hexagonal nuts, surface finish marks, channels, I-sections and angles for civil engineering drawings and many other shapes which need to be drawn by the draftsman.

4.3 There may be separate templates for different types of shapes.

4.3.1 The sizes of each type of shapes shall be selected from preferred number series given in IS : 1076 - 1985 ' Preferred numbers '. However, combination of sizes in each template shall be decided between the purchaser and the manufacturer.

4.4 Type B templates shall have a stepped groove parallel to the shape to be drawn to prevent smudging of ink and the boundry of this groove shall be at least 0·5 mm away from the shape to be drawn.

4.5 Minimum thickness of Type A templates shall be 0·7 mm.

4.6 Minimum thickness of Type B templates shall be 1·5 mm and minimum depth of the stepped groove to prevent smudging of ink shall be 0·7 mm.

4.7 Minimum distance from either edge of the template to the groove shall be 8 mm.

4.8 Minimum distance between two shapes on a template shall be 5 mm.

4.9 The grooves in the templates shall be such that the mean of the reproduced line shall not fall beyond ±0·4 mm from the standard size.

4.10 The size of the template shall be selected such as to facilitate convenient working on the drawing.

4.11 Specification/size of the geometrical shape shall be marked conveniently near the shape along with the small lines for the two axis to conveniently align the shape on the drawing paper and preferably the axis will be parallel to the sides of templates.

4.12 The templates shall be marked with the pattern of template and the size of pencil or pen to be used.

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5. Workmanship and Finish

5.1 The geometrical shape shall be neatly and uniformly grooved or moulded. The workmanship and finish shall of the best grade and to the entire satisfaction of purchaser.

6. Tests

6.1 The templates shall be tested to conform to the requirement given under **3, 4** and **5.**

7. Marking

7.1 The templates shall be marked with the manufacturer's name or trade-mark and the year of manufacture.

7.2 The template may also be marked with the Standard Mark.

7.2.1 *Standard Mark* — Details available with the Bureau of Indian Standards.

8. Packing

8.1 Each template shall be individually packed in polythene bag or in a suitable container. A full set of templates shall be packed in a suitable packing case for transit and storage.

EXPLANATORY NOTE

This standard is one of a series of Indian Standards relating to drawing instruments. Stencil templates for geometrical figures is a drawing instrument used by draftsmen and engineers to draw different types of geometrical shapes on engineering drawings.

Taking into consideration the views of producers and consumers, the Sectional Committee responsible for the preparation of this standard felt that it should be related to the manufacturing practices followed in the country in this field.

Metric system has been adopted in India and all the values in this standard have been given in this system.